鹿谷茶區冬季不同深耕方式對茶樹生育之影響

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摘　要

㈠茶園不同深耕方式作業時間差異明顯，兩年平均作業能力（工作小時／公頃: 迴轉式 20.2 ，翻土式 34.3 ，氣爆式 49.2 。本茶區土層較淺，石頭較多，以迴轉式及氣爆式的機械適應性較佳。

㈡茶菁收量，春茶以氣爆式深耕區較高，秋、冬茶以迴轉式深耕區較高，全年合計茶菁收量，迴轉式及氣爆式深耕區高於翻土式深耕區及對照區。

㈢全年製茶品質，各處理間差異不大。

㈣表土孔隙率，各深耕處理區比對照區提高 1.5-5.5 ％，底土孔隙率提高0.5-4.7 ％，表、底土孔隙率大致以迴轉式深耕區較高。

㈤土壤抗錐壓硬度平均值，三種深耕區小於對照區，三種深耕區間差異不明顯。

Effects of Different Deep Plowing Methods in Winter on Tea Growth in Lu-Ku Area

Taiwan Tea Experiment Station

Summary

The objectives of this research were to study the effects of different plowing methods in tea field on soil physical properties, as well as tea yield and quality . The results are summarized as follows ：

1. In accordance with field mechanic operation in working capacity that the rotary plowing and pneumatic-injection were better suited in Lu-Ku area.

2. Seasonal effects of different deep plowing methods in tea field on the yield were not consistent, whereas the total fresh tea yields of the rotary plowing and pneumatic-injection treatments were higher than that of spade plowing and control treatments.

3. No significant effects on tea quality were found among all treatments.

4. Deep plowing tended to increase soil porosity either in surface soils and in subsoils, as compared to the control.

5. The soil compaction in different deep plowing methods were lower as compared to the control.